

### REMARKS

Reconsideration of this application, in view of the foregoing amendments and the following remarks, is respectfully requested.

#### Claim Objections

Claims 5 and 10 are objected to because of certain informalities. These claims have been amended to remove informalities.

#### Claim Rejections under 35 USC § 112

Claims 1 – 11 and 13 – 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse these rejections.

The Examiner has stated that “Claim 1 and 11 recite the limitation “determining a peak average of plurality of data frames received by said analog front end”, however neither the written description nor the drawings show how to determine the peak average received by the analog front end.” Applicants respectfully point to the Examiner that the subject matter recited in the present application is directed to one skilled in the art of ADSL related communication technologies. The specification on page 13 describes TargetPeak. Further, on pages 14 and 15, the specification describes measuring maximum peaks of data frames in the “downstream” signal. A “downstream” signal is understood by one skilled in the art of DSL technology as a signal received by a remote modem. Furthermore, the maximum peak is defined in terms of TargetPeak for comparison. As explained above, the TargetPeak is well defined on page 13. Therefore, one skilled in the art of DSL technology will have absolutely no problem in understanding the meaning of determining a peak average of plurality of data frame received by an analog front end as recited in these claims. Applicants believe the specification clearly describes every element of claims 1 and 11 for one skilled in the art of DSL technology to practice the invention. Accordingly, Applicants respectfully request the withdrawal of the rejection of claims 1 and 11 under 35 USC §112, first paragraph.

Claim 15 is rejected under 35 U.S.C. 112, fourth paragraph, as failing to comply with further limit the subject matter claimed requirement. Claim 15 is reciting the a limitation claimed in claim 11 without further limiting said limitation.

Claim 15 has been canceled.

*Claims not rejected in view of cited reference*

Claims 2, 4-5, 7, 9-10, 13, and 16 have not been rejected in view of any cited references. Accordingly, Applicants believe that in view of the explanation provided above, these claims are patentably distinguishable from cited references and thus, allowable.

*Double Patenting*

Claims 1 and 11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 17 of U.S. Patent No. 6,840,068 in view of Giebel (US Patent 6073848).

Applicants respectfully point to the Examiner that obviousness-type double patenting rejection of these claims in view of a reference that is not owned by Applicants is not proper. "Before consideration can be given to the issue of double patenting, there must be some common relationship of inventorship and/or ownership of two or more patents or applications." (See MPEP §804, emphasis added). Applicants do not own Giebel patent and thus the double patenting rejection of claims 1 and 11 is improper. Applicants respectfully request the withdrawal of the double patenting rejections.

*Claim Rejections - 35 USC § 103*

Claims 1, 3, 6, 8, 11, 14, and 17 — 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (US Patent 6,498,927) in view of Giebel (US Patent 6073848). Applicants respectfully traverse these rejections.

There are three basic criteria to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). First, there must be some suggestion or motivation in the cited references to modify or combine their teachings; second, there must be reasonable expectation of success; and third, the prior art references must teach or suggest all the claim limitations. *See* M.P.E.P §2142. As to claims 1 and 11, the combination of cited references does not teach or suggest all the claim limitations.

As to claim 1, the Examiner has stated that “Kung et al teach an analog front end with a plurality of interleaved gain and filter stages, comprising, selecting an order for gain stages to be considered ...” Applicants respectfully disagree and point to the Examiner that in Kung et al. there is no option of selecting an order of gain stages. As shown and described in figure 8, each gain stage is coupled to the next and the incoming RF signal must pass through each gain stage. Further, nowhere in the cited sections, Kung et al. describe selecting an order of gain stages as recited in claim 1.

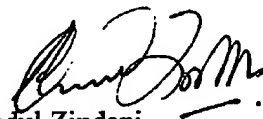
Further, the Examiner has stated that Kung et al. teaches “for a first iteration of each gain stage in said selected order. ...” (emphasis added). Applicants respectfully point to the Examiner that first, Kung et al. does not teach selecting an order for various iteration; Second, Kung et al. does not teach determining a peak and comparing it with the gain of each stage in each iteration. In contrast, Kung et al. teaches an overall determination of signal level by the baseband modem 874 and the information is passed to the AGC 884, which in-turn generates GAIN\_CTRL signal 886 for gain controller 828. The gain controller 828 then determines “which stages are to be gain-controlled to achieve improved or optimum performance.” (See col. 9, lines 47-51). Thus, Kung et al. does not teach iterations for each gain stage but instead it teaches an overall gain adjustment based on the feedback from the baseband modem 874.

As to the combination of Kung et al. and Giebel, Applicants respectfully point to the Examiner that the two references cannot be combined because they actually teach away from each other. For example, the Examiner has stated that the peak average value as described by Giebel can be used by one skilled in the art in Kung et al. Applicants respectfully point to the Examiner that a careful reading of the cited sections reveal that in fact, Giebel actually describes problems with using the peak average value thus, first, one skilled in the art will not use

something described by Gibel as being problem, Second, Gibel actually discusses the peak average value of the output signal and not the peak average value of a plurality of data frames received by the analog front end as recited in claim 1. Even if the Examiner's reading of the combination is assumed to be correct, then the combination still does not teach determining a peak average of a plurality of data frames received by the analog front end for a present gain setting as recited in claim 1. Accordingly, claims 1 and 11 and those depend therefrom are patentably distinguishable from the combination of cited references.

Applicant believes this application and the claims herein to be in a condition for allowance. Should the Examiner have further inquiry concerning these matters, please contact the below named attorney for Applicant.

Respectfully submitted,



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